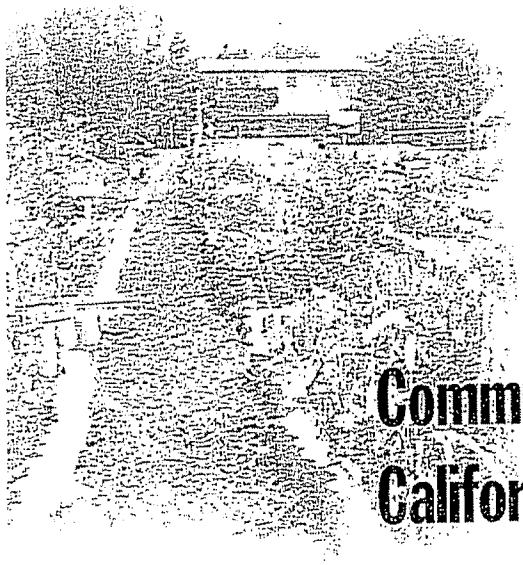

Community Gardens: Lessons Learned From California Healthy Cities and Communities

Joan Twiss, MA, Joy Dickinson, BS, CHES, Shirley Duma, MA, Tanya Kleinman, BA, Heather Paulsen, MS, and Liz Rilveria, MPA

Community gardens enhance nutrition and physical activity and promote the role of public health in improving quality of life. Opportunities to organize around other issues and build social capital also emerge through community gardens.

California Healthy Cities and Communities (CHCC) promotes an inclusionary and systems approach to improving community health. CHCC has funded community-based nutrition and physical activity programs in several cities. Successful community gardens were developed by many cities incorporating local leadership and resources, volunteers and community partners, and skills-building opportunities for participants.

Through community garden initiatives, cities have enacted policies for interim land and complimentary water use, improved access to produce, elevated public consciousness about public health, created culturally appropriate educational and training materials, and strengthened community building skills.

THE COMMUNITY GARDEN IS exceptional in its ability to address an array of public health and livability issues across the lifespan.[1] Community gardens began at the turn of the 20th century and had a renaissance during the world wars in response to food shortages.[2] Today, community gardens appeal to newly arrived immigrants, who use them to help maintain cultural traditions, and to those committed to sustainability and to personal and family health. Populations with health disparities, who do not always have access to nutritious food outlets (e.g., grocery stores, farmers' markets) owing to limited financial and community resources and inconvenient transportation systems, can usually access these gardens, since they often are located within neighborhoods and on public property.

Community gardens build and nurture community capacity, which Mayer defines as "the sum total of commitment, resources, and skills that a community can mobilize and deploy to address community problems and strengthen community assets."[3] Strong community capacity increases the effectiveness and quality of community health interventions.

Public health professionals often lament the fact that much of their work is out of the public eye. Community gardens are a tangible way to demonstrate public health efforts through organized community-centered activities that link many disciplines. Professionals outside of mainstream public health often become new allies as a result of their involvement. Community gardening fosters neighborhood ownership and civic pride, which in turn build a constituent base for a broader policy agenda.

Since 1988, California Healthy Cities and Communities (CHCC) has supported over 65 communities with developing, implementing, and evaluating programs, policies, and plans that address the environmental, social, and economic determinants of health. Consistent with the Healthy Cities and Communities Model, CHCC program participation requires the convening and ongoing support of a broad-based collaborative, including the public, nonprofit, business, and resident sectors; development of a work plan with community-driven priorities and strategies; and the commitment of the municipality, demonstrated by a council resolution and the dedication of staff time and other resources.[4,5] Several cities have established community gardens, often building on past healthy community initiatives.

In general, participating California Healthy Cities (Table 1) that established community gardens responded to a request for proposals to improve community nutrition and physical activity, or to enhance food security. Each city's approach is unique to its circumstances. Funding is provided through grants from CHCC (a program of the Center for Civic Partnerships/Public Health Institute) (Table 2). Significant technical assistance is also provided to local coordinators and collaboratives by CHCC staff and its partners.

TABLE 1—Demographics of Cities That Received Grants From California Healthy Cities and Communities for Community Garden Programs

City (County)	Population[a]	Race/Ethnicity,[a] %	Median Household Income,[a] $
Berkeley (Alameda)	102 743	White, 55.2 Asian/Pacific Islander, 16.4 African American, 13.3 Hispanic/Latino, 9 7 Native American, 0.3 Other, 0.6	44 485
Escondido (San Diego)	133 559	White, 51.9 Hispanic/Latino, 38 7 Asian/Pacific Islander, 4 6 African American, 2.0 Native American, 0 6 Other, 0 1	42 567
Loma Linda (San Bernardino)	18 681	White, 47 1 Asian/Pacific Islander, 24.5 Hispanic/Latino. 16.3 African American, 7.0 Native American, 0.3 Other. 0 2	38 204
Oceanside (San Diego)	161 029	White, 53.6 Hispanic/Latino, 30.2 Asian/Pacific Islander, 6.6 African American. 5 9 Native American. 0.4 Other, 0 1	46 301
San Bernardino (San Bernardino)	185 401	Hispanic/Latino, 47 5 White, 28 9 African American, 16 0 Asian/Pacific Islander. 4 4 Native American, 0 6 Other, 0.2	31 140
West Hollywood (Los Angeles)	35 716	White, 81.4 Hispanic/Latino, 8.8 Asian/Pacific Islander. 3 8 African American. 2.9 Native American, 0 2 Other, 0 2	38 914
California	33 871 648	White, 46 7 Hispanic/Latino, 32 4 Asian/Pacific Islander, 10 9 African American, 6 7 Native American, 1.0 Other, 16 8	47 493

[a]Based on 2000 census data

KEY ELEMENTS FOR SUCCESS

While each city's approach was unique, the following key elements were integral to their efforts: commitment of local leadership and staffing, involvement of volunteers and community partners, and availability of skill-building opportunities for participants.

Local Leadership and Staffing

A city's commitment of staff, financial, and in-kind resources is critical to the success of community gardens. City councils in each of 2 cities purchased land valued at $70 000 or more for gardens, one using funds from the Community Development Block Grant, the other using money from the city's general fund. Both provide staffing on an ongoing basis.

Volunteers and Community Partners

The participation and support of diverse community members help a community garden to thrive. These members include residents, partner institutions (e.g., schools, county health departments, universities), and volunteers (e.g., businesses, civic associations). The inclusiveness of gardens allows individuals and groups to contribute their knowledge, skills, and experience. The business community contributes tools and lends equipment. Residents and volunteers often identify innovative strategies to leverage resources, such as the interim use of property and volunteer stipends as an alternative to hiring staff.

Skill-Building Opportunities

Gardening workshops provide opportunities for residents, staff, and volunteers of all ages to develop skills in leadership, community organizing, cultural competency, and program planning, implementation, and evaluation. Leadership development is enhanced through experiential learning, which includes intergenerational and peer-to-peer mentoring and train-the-trainer models. Volunteers and staff lead workshops, organize taste-testing events, facilitate discussions, advocate for the garden, and develop culturally appropriate resources (e.g., training materials, cookbooks, newsletters, Web sites). These ongoing, interactive learning opportunities help to sustain momentum for the garden.

RESULTS AND DISCUSSION

Community improvements resulting from gardening efforts can range from knowledge and skill enhancement to behavioral and systems change. California Healthy Cities with community gardens have experienced a wide variety of results (Table 2). For instance, the city of West Hollywood complemented its school gardening program with nutrition and physical activity education. Self-reported survey results demonstrated that participants (n = 338) increased the number of physical activity sessions from 4.9 to 5.2 times per week (6%) and increased consumption of fruits and vegetables from 3.44 to 3.78 servings per day (10%). In the city of San Bernardino, the number of students that began gardening at home after participating in the school gardening program increased from 62 to 75 (20%).

The city of Berkeley passed the Berkeley Food and Nutrition Policy, which supports small-scale sustainable agriculture (e.g., community gardens, local farms). In

TABLE 2—Characteristics of Community Garden Programs Funded by California Healthy Cities and Communities (CHCC)

City	Lead Department	CHCC Support, $	Funding Sources[a]	Priority Population	Results
Berkeley	Public Health	134 000 (over 5 years)	FFA, Network, TCWF	Youth, ethnically diverse	Established 1 school garden and 1 day care center garden; supported 2 existing school gardens; provided supplies to 3000 gardeners; opened a Farmer's Market in West Berkeley; provided nutrition or physical activity education (or both) to 1800 residents; passed the Berkeley Food and Nutrition Policy.
Escondido	Community Development Block Grant (CDBG)	75 000 (over 3 years)	Network	Ethnically diverse	Established 2 gardens with 218 garden plots involving 600 gardeners; opened a greenhouse to support year-round gardening; passed the "Adopt-A-Lot" policy to encourage the interim use of vacant land for gardens; approved a no-cost water policy for gardens on city property.
Loma Linda	City Manager	38 000 (over 2 years)	DHS	Ethnically diverse	Established 1 garden with 52 plots involving over 40 gardeners. Increased average consumption of fruits and vegetables among 35% of gardeners from 3 to 3.71 servings per day.
Oceanside	Housing and Neighborhood Services	75 000 (over 3 years)	Network	Ethnically diverse	Established 2 gardens involving 85 households; started 2 school gardens involving 115 student gardeners; added 10 plots to a garden serving seniors. Of the 228 residents receiving nutrition education, 86% indicated an intent to improve eating habits.
San Bernardino	Public Services	25 000 (over 1 year)	FFA	Youth, intergenerational, ethnically diverse	Established 3 school gardens involving 127 students; increased the number of students gardening at home by 20%; approved the Vacant Lot Beautification Program that allows public use of private land and city-owned vacant lots to establish gardens or pocket parks.
West Hollywood	Human Services	75 000 (over 3 years)	Network	Youth, intergenerational, ethnically diverse	Established 5 school gardens involving 460 students; designated 2 plots at 2 community gardens for school use; started container gardening programs at 3 schools; increased weekly physical activity sessions from 4.9 to 5.2 times per week and increased consumption of fruits and vegetables from 3.44 to 3.78 servings per day among 338 students participating in gardening and educational workshops.

[a]FFA = Food For All; Network = California Nutrition Network for Healthy Active Families, California Department of Health Services; TCWF = The California Wellness Foundation; DHS = Preventative Health and Health Services Block Grant, California Department of Health Services.

addition, the city of Escondido approved the "Adopt-A-Lot" policy, which allows for the interim use of public and private property for community benefit. This policy provides a special no-fee city permit and an expedited land use approval process that allows normal zoning regulations and requirements (e.g., those concerning parking) to be waived. The policy contributes to city beautification, decreases code violations, and increases space for community gardens.

While each city experienced a variety of results, there were several common lessons learned about the importance of the following:

- ongoing training, mentoring, and leadership development for gardeners and staff;
- building on successful community-based programs through partnerships;
- public awareness of the benefits of community gardens; and
- experiential work (e.g., classes in gardening, exercise, or cooking), which often led to municipal codes and administrative policies.

LOOKING AHEAD

Educating Stakeholders

Informing decisionmakers about the benefits of community gardens can be time-intensive. Changes in leadership can slow momentum. Communicating the benefits beyond the traditional leadership to the community at large can mitigate those challenges, help build a broad-based constituency, and provide long-term, consistent support of community gardening as a norm. Publications, electronic networks, and convenings can support learning across communities.

Integrating Community Gardens Into Development

While the benefits of community gardens are many, land and housing shortages may compete for gardening space. Because community gardens are flexible in their design (e.g., containers on patios and rooftops as options to ground planting), they can be incorporated harmoniously into new structures or into existing facilities (e.g., school campuses, parks, community centers).

Supporting Research

The dearth of data on the positive impacts of community gardens hinders the ability to make a convincing argument when resources (e.g., funding, land, water) are at stake. Anecdotal evidence abounds, but important outcomes such as the physical benefits of gardening and com-

West Hollywood residents tending their garden.

munity connectedness are difficult to measure. User-friendly, multilingual, and adaptable evaluation tools are urgently needed given the diversity of participants and disciplines. The development of strategies to measure the benefits of community gardens would sustain and promote this activity within an active living agenda.

Investing for the Long Term

Given the opportunities and challenges inherent in this work, long-term investments—policymaking, funding, staffing, and acquiring in-kind resources—are needed to support planning, implementation, and evaluation. Community visioning and strategic planning processes are additional opportunities to integrate this work. ■

About the Authors

The authors are with the Center for Civic Partnerships, Sacramento, Calif.

Requests for reprints should be sent to Joan M. Twiss, Center for Civic Partnerships, 1851 Heritage Ln. Suite 250, Sacramento, CA 95815 (e-mail jtwiss@civicpartnerships.org).

This report was accepted May 9, 2003.

Contributors

J. Twiss, S. Duma, and T. Kleinman drafted the original report. J. Dickinson contributed to the original report, researched and contributed to the Results section, developed the tables, and selected the photographs. H. Paulsen drafted the abstract and researched the recommended resources. L. Rilveria researched and formatted the references and resources and contributed to the tables and identification of the photograph. All authors conceptualized and edited the report.

Acknowledgments

Support and resources for this field action report and the local programs of California healthy cities discussed herein were provided by the Public Health Institute; *The California Nutrition Network for Healthy, Active Families* through funding from The California Endowment and the United States Department of Agriculture; the California Department of Health Services, through funding from the Preventive Health and Health Services Block Grant; and Food For All. We are grateful to the California healthy cities for conducting the work described in this report, and for partnering with California Healthy Cities and Communities, a program of the Center for Civic Partnerships.

References

1 Goodman R. Report on community gardening. *Natl Gardening*. May/June 2000;46–49, 53.

2 *New York's Community Gardens—A Resource at Risk*. New York, NY: The Trust for Public Land; 2001.

3 Mayer SE. Building community capacity with evaluation activities that empower. In: Fetterman DM, Kaftarian SJ, Wandersman A, eds. *Empowerment Evaluation. Knowledge and Tools for Self-Assessment and Accountability*. Thousand Oaks, Calif: Sage Publications; 1996:332.

4 Hancock T. Healthy cities and communities: past, present and future. *Natl Civic Rev*. 1997;86:11–21.

5 Twiss J, Duma S, Look V, Shaffer GS, Watkins AC. Twelve years and counting: California's experience with a statewide healthy cities and communities program. *Public Health Rep*. 2000; 115:125–133.

Resources

- Armstrong D. A survey of community gardens in upstate New York: implications for health promotion and community development. *Health and Place*. 2000;6:319–327.
- Center for Civic Partnerships. *Fresh Ideas for Community Nutrition and Physical Activity*. Sacramento, Calif: Public Health Institute; 2002.
- Hancock T. People, partnerships and human progress: building community capital. *Health Promot Int*. 2001;16: 275–280.
- Sallis J, Bauman A, Pratt M. Environmental and policy interventions to promote physical activity. *Am J Prev Med*. 1998;15:379–397.
- Active Living by Design. Available at: http://www.activelivingbydesign.org.
- American Community Gardening Association. Available at: http://www.communitygarden.org.
- Center for Civic Partnerships. Available at: http//www.civicpartnerships.org.